



375290

**Marathon
Petroleum Company****RECEIVED**

DEC 14 1982

EPA - D.L.P.C.
STATE OF ILLINOIS

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 13, 1982

4th floor
Compliance Monitoring Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

Attn: Mr. Mark Haney

Dear Mr. Haney:

In compliance with RCRA regulations, please be advised that the attached measurements were obtained on ground water samples taken from the six ground water monitoring wells at Marathon Petroleum Company's Robinson, Illinois Refinery (EPA ID #ILD00547-6882, IEPA State ID #0330250003G). The wells were sampled on November 9, 1982. A map showing the location of the monitoring wells and the ground water flow direction is attached.

The following parameters exceeded the National Interim Primary Drinking Water Standards:

<u>Well #B-2</u>	<u>Concentration</u>
Nitrates	10.7 mg/l

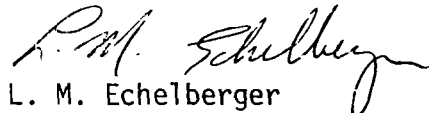
This well which is hydraulically upgradient of our land-based hazardous waste facilities, is adjacent to farmland to which nitrogen fertilizers are applied. This probably accounts for this high nitrate measurement.

Please note the name change to Marathon Petroleum Company, which became a wholly-owned subsidiary of Marathon Oil Company on July 10, 1982.

December 13, 1982

If you have any questions, please contact me at 618-544-2121.

Yours truly,



L. M. Echelberger
Environmental Coordinator

LME:lmw

Attachments

STATE OF ILLINOIS

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GROUND WATER ANALYSES
MARATHON PETROLEUM COMPANY - ROBINSON REFINERY
DATE OF SAMPLING NOVEMBER 9, 1982

WELL NO. →	B-1	B-2	B-3	B-4	N-1	N-2
PARAMETER						
Temperature (°C)	15.6	15.6	16.1	14.4	16.1	15.0
Arsenic (mg/l)	<0.005	ND	ND	ND	ND	<0.005
Barium (mg/l)	0.020	0.040	0.040	0.045	0.045	0.075
Cadmium (mg/l)	ND	ND	ND	ND	ND	<0.005
Chromium (mg/l)	ND	ND	ND	ND	ND	ND
Fluoride (mg/l)	0.15	0.12	0.38	0.34	0.28	0.14
Lead (mg/l)	<0.01	<0.01	<0.01	0.012	<0.01	0.013
Mercury (mg/l)	<0.0002	ND	ND	ND	<0.0002	ND
Nitrate (as N)	0.32	10.7	2.42	<0.04	<0.04	<0.04
Selenium (mg/l)	ND	ND	ND	ND	ND	ND
Silver (mg/l)	ND	ND	ND	ND	ND	ND
Endrin (mg/l)	ND	ND	ND	ND	ND	ND
Lindane (mg/l)	ND	ND	ND	ND	ND	ND
Methoxychlor (mg/l)	ND	ND	ND	ND	ND	ND
Toxaphene (mg/l)	ND	ND	ND	ND	ND	ND
2, 4-D (mg/l)	ND	ND	ND	ND	ND	ND
2, 4, 5-TP Silvex (mg/l)	ND	ND	ND	ND	ND	ND
Gross Alpha (pCi/l)	<2	<2	<2	<4	<2	<2
Gross Beta (pCi/l)	<4	<4	14 ± 3	<3	9.5 ± 3.1	<6
Radium 226 (pCi/l)	-	-	-	-	-	-
Radium 228 (pCi/l)	-	-	-	-	-	-
Coliform Bacteria (1/100 ml)	0	0	0	0	0	0
Chloride (mg/l)	69.8	98.5	60.3	75.9	107	70.2
Iron (mg/l)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Manganese (mg/l)	.200	ND	.015	1.400	0.470	0.500
Phenols (mg/l)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Sodium (mg/l)	41	42	49	37	30	42
Sulfate (mg/l)	<9	<9	<9	18	14	<9
pH (pH Units)	7.6	7.8	8.1/ 8.1/ 8.1/ 8.1	7.9	8.0/ 8.0/ 8.0/ 8.0	7.7
Specific Conductance (umhos/cm)	541	413	409/ 413/ 414/ 415	313/308	590/ 599/ 588/ 597	526
Total Organic Carbon (mg/l)	1.3/1.3	1.8/1.8	44/ 43/ 33	4.9/5.0	1.3/ 1.4/ 1.3/ 1.1	1.4/1.4
Total Organic Halogen (ug/l)	.0279/.0223	.0162/.0196	.0522/.0544/.0498/.0510	.0189/.0221	.0221/.0200/.0216/.0228	.0190/.0152

ND = Not Detectable

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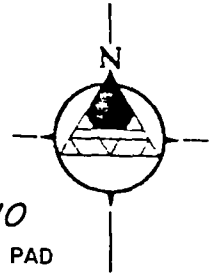
0814-024-07

EAST
 RETAINING
 BASIN

OLD LAND FARM
 (NOT IN USE)

B-4
 (509.00)
 OILY
 SLUDGE
 PIT

WASTE PILE PAD
 DAF SKIMMING PIT



FUTURE
 1020 1025
 1021 1026
 1022
 1023
 FUTURE

IMPOUNDMENT BASIN
 DREDGINGS SETTLING
 BASIN

DIKE

PLANT
 BOUNDARY

B-3
 (514.30)

16 ACRE
 LAND FARM
 FACILITY

B-1
 (517.35)

1031
 1032

B-2
 (524.25)

2001

NINTH STREET

2004

2006

KEY:

- B-1 ● EXISTING PIEZOMETER LOCATIONS
- (517.35) GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- N-1 ◆ NEW PIEZOMETER LOCATIONS
- EQUIPOTENTIAL LINE (CONTOUR OF EQUAL HYDRAULIC HEAD) (DASHED WHERE APPROXIMATE)
- FLOW LINE: INDICATES DIRECTION OF GROUND WATER FLOW
- ▨ LAND BASED HAZARDOUS WASTE MANAGEMENT FACILITY

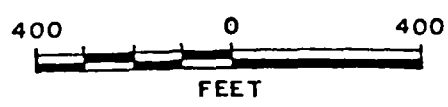


FIGURE 2

POTENTROMETRIC SURFACE MAP
 ROBINSON REFINERY
 MARATHON OIL COMPANY

Dames & Moore